Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID52484
Project Name	Fertilizers Recommendation System For Disease Prediction
Maximum Marks	10 Marks

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No.	Parameter	Values	Screenshot

1.	Model Summary	Total params :896
		
		Trainable params:896
		
		Non-trainable params:0
			`model.summary()`
			`Model: "sequential_1"`
			`_____`
			`Layer (type) Output Shape Param #`
			`=====`
			`conv2d_1 (Conv2D) (None, 126, 126, 32) 896`
			`max_pooling2d_1 (MaxPooling2D) (None, 63, 63, 32) 0`
			`flatten_1 (Flatten) (None, 127008) 0`
			`=====`
			`Total params: 896`
			`Trainable params: 896`
			`Non-trainable params: 0`
			`_____`

2.	Accuracy	Training Accuracy -
		
		Validation Accuracy -
			`model.fit_generator(x_train,steps_per_epoch=len(x_train),validation_data=x_test,validation_steps=len(x_test),epochs=10)`
			`/usr/local/lib/python3.7/dist-packages/ipykernel_launcher.py:1: UserWarning: `Model.fit_generator` is deprecated and will be removed in a future version. Please use `Model.fit`, which supports generators.`
			`"""Entry point for launching an IPython kernel.`
			`Epoch 1/10`
			`171/171 [==========] - 37s 215ms/step - loss: 0.6759 - accuracy: 0.8007 - val_loss: 0.3976 - val_accuracy: 0.8550`
			`Epoch 2/10`
			`171/171 [==========] - 36s 212ms/step - loss: 0.2652 - accuracy: 0.9088 - val_loss: 0.2140 - val_accuracy: 0.9245`
			`Epoch 3/10`
			`171/171 [==========] - 36s 210ms/step - loss: 0.2217 - accuracy: 0.9269 - val_loss: 0.2333 - val_accuracy: 0.9186`
			`Epoch 4/10`
			`171/171 [==========] - 37s 218ms/step - loss: 0.1855 - accuracy: 0.9387 - val_loss: 0.2355 - val_accuracy: 0.9180`
			`Epoch 5/10`
			`171/171 [==========] - 36s 210ms/step - loss: 0.1676 - accuracy: 0.9431 - val_loss: 0.1273 - val_accuracy: 0.9587`
			`Epoch 6/10`
			`171/171 [==========] - 36s 212ms/step - loss: 0.1370 - accuracy: 0.9558 - val_loss: 0.1602 - val_accuracy: 0.9452`
			`Epoch 7/10`
			`171/171 [==========] - 37s 218ms/step - loss: 0.1254 - accuracy: 0.9572 - val_loss: 0.1931 - val_accuracy: 0.9322`
			`Epoch 8/10`
			`171/171 [==========] - 36s 211ms/step - loss: 0.1227 - accuracy: 0.9580 - val_loss: 0.1378 - val_accuracy: 0.9475`
			`Epoch 9/10`
			`171/171 [==========] - 36s 210ms/step - loss: 0.1191 - accuracy: 0.9561 - val_loss: 0.1132 - val_accuracy: 0.9611`
			`Epoch 10/10`
			`171/171 [==========] - 36s 210ms/step - loss: 0.1109 - accuracy: 0.9600 - val_loss: 0.1426 - val_accuracy: 0.9505`

```
model.summary()
```

```
Model: "sequential_1"
_________________________________________________________________
 Layer (type)                 Output Shape              Param #
=================================================================
 conv2d_1 (Conv2D)            (None, 126, 126, 32)      896

 max_pooling2d_1 (MaxPooling  (None, 63, 63, 32)       0
 2D)

 flatten_1 (Flatten)          (None, 127008)            0

=================================================================
Total params: 896
Trainable params: 896
Non-trainable params: 0
_________________________________________________________________
```

```
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```
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